# PONy Express™ 16

## Universal Transport Platform for Access Networks

The PONy (Passive Optical Network over wavelengths) Express 16 is the first transport platform to use a Passive Optical Network (PON) architecture to break the access bottleneck. Using Dense Wave Division Multiplexing (DWDM), the PONy Express 16 provides cost-effective access to business parks, campuses, and multi-dwelling unit/multi-tenant units over a shared network infrastructure without sacrificing security or limiting bandwidth. Up to 16 customers can be simultaneously connected with each having up to 1Gbps dedicated, symmetrical bandwidth. Operationally, each Optical Network Terminal (ONT) is "colorless" which eliminates the sparing issue that plagues traditional DWDM systems and provides "plug-n-play" system provisioning. The PONy Express 16 is integrated into other ADC products such as the OmniReach® FTTX Fiber Distribution Hub FDH3000S providing a compelling solution unique to the industry.

SPEC SHEET

### Features:

- Supports point-to-point and point-to-multipoint architectures
- Delivers up to 1Gbps of dedicated, symmetrical bandwidth per suscriber
- Uses a single fiber for up and downstream traffic
- Provides "colorless" optics on the ONTs/ONUs as well as the OLT line cards
- Supports SNMP and TL1 for management
- Provides multiple deployment options to fit every environment:
  - Strand mount or underground option
  - Rack mount option
  - Modular option for existing splitter cabinet
- Uses modular architecture for simple and quick service and bit rate upgrades
- Allows complete or partial redundancy through the network

### Benefits:

- Enables multiple services and bit rates to exist simultaneously without complex traffic management
- Allows for service and bit rate upgrades without infrastructure changes
- Reduces inventory costs by using "colorless" ONTs/ONUs and OLT line cards (OCUs)
- Recovers fiber assets in older deployments and reduces fiber count for new deployments
- Supports transparent SLAs
- Plug-n-play simplicity reduces time to market and eliminates wavelength management issues
- Allows 1310nm overlay using ADC's DWDM VAM module to support legacy networks
- Provides more security and privacy due to dedicated wavelengths

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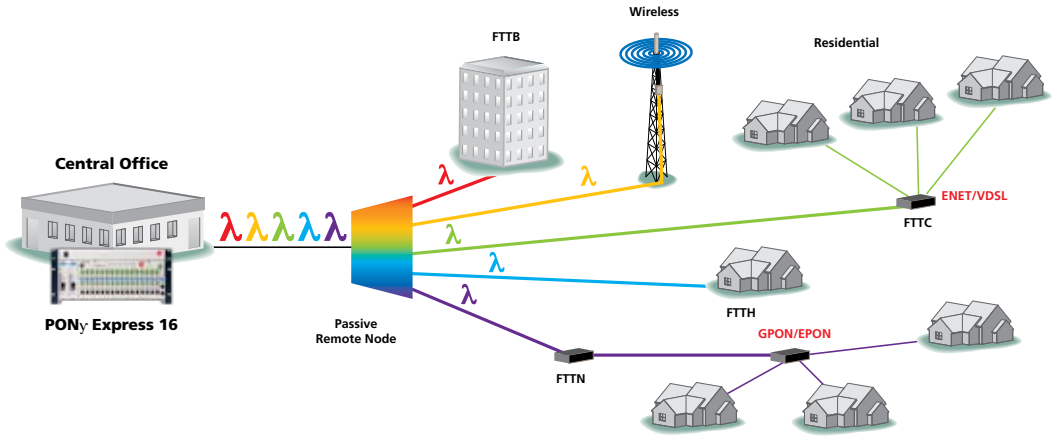
The DWDM-PON architecture (presented below) removes the bandwidth bottlenecks on the feeder fiber in the existing broadband access networks and enables flexible service upgrades.




### Applications:

- Business access services (FTTB/FTTC)
  - True transparent LAN service
  - Dedicated GE
  - Wireless/WiMAX/Wi-Fi backhaul
- Carrier services (FTTB/FTTN)
  - Dedicated GE for carrier hotels
  - Fiber exhaust and reduced fiber count between nodes or offices
- Residential services (FTTH/FTTC)
  - GPON/EPON backhaul
  - Triple-play with dedicated 100Mbps to 1Gbps to the home

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**Optical Line Termination Shelf (OLT)**
OLT shelf with BMS, OCU, MPU, PSU slots
Dimensions: 19" x 5RU (4RU OLT and 1RU Fan)
Power Supply: -48V/3.5A
Operating Temperature: 0° to 50° C

**Remote Node Packaging Option**
**1 RU Shelf**

- Passive remote node provides 1x16 channels of DWDM multiplexing/de-multiplexing
- Hardened components for outdoor installation
- Rack-mountable unit for indoor installation

**Optical Network Termination (ONT)**

- DWDM 1.25Gbps Gigabit Ethernet (GE) termination of optical signal to RJ45
- All ONT modules are colorless and interchangeable for easy inventory management and plug-and-play operation
- Symmetrical dedicated 1.25Gbps GE with transparent Quality of Service (QoS)

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## Ordering Information

| Description | | Catalog Number* |
|---|---|---|
| **OLT Shelf and Common Equipment** | 19" Rack Mountable Chassis for Optical Line Terminating Equipment | PNY16-OLT Shelf |
| | Software license for OLT (1 PNYr OLT) | PNY16-OLT SW |
| | Main Control Unit (MCU) | PNY16-MCU |
| | Broadband Lightsource and Upstream AWG Mux/Demux | PNY16-BMU |
| | Variable speed fan unit containing 3 fans | PNY16-OLT Fan |
| | -48VDC Power Supply Unit | PNY16-PSU |
| **OM Shelf and Module** | Chassis | PNY16-OM Shelf |
| | Module | PNY16-1310-OM |
| **CO Line Cards** | 1.25 Gbps Ethernet Line Card for OLT | PNY16-OCU-1250 |
| | 125 Mbps Ethernet Line Card for OLT | PNY16-OCU-125 |
| **Subscriber Equipment** | 1.25Gbps Ethernet Subscriber Unit | PNY16-ONT-1250 |
| | 125Mbps Ethernet Subscriber Unit | PNY16-ONT-125 |
| **Remote Equipment** | Downstream AWG Mux/Demux | PNY16-RN |
| **Redundant Systems** | Includes: 2 PNY16-OLT Shelf, 2 PNY16-OLT SW License, 2 PNY16-MPU, 2 PNY16-BMU, 2 PNY16-OLT Fan, 4 PNY16-PSUs, 8 PNY16-OCU-1250s, 8 PNY16-ONT-1250s, and 2 PNY16-RN | PNY16-4R-1250 |
| | Includes: 2 PNY16-OLT Shelf, 2 PNY16-OLT SW License, 2 PNY16-MPU, 2 PNY16-BMU, 2 PNY16-OLT Fan, 4 PNY16-PSUs, 16 PNY16-OCU-1250s, 16 PNY16-ONT-1250s, and 2 PNY16-RN | PNY16-8R-1250 |
| | Includes: 2 PNY16-OLT Shelf, 2 PNY16-OLT SW License, 2 PNY16-MPU, 2 PNY16-BMU, 2 PNY16-OLT Fan, 4 PNY16-PSUs, 32 PNY16-OCU-1250s, 32 PNY16-ONT-1250s, and 2 PNY16-RN | PNY16-16R-1250 |

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**Website: www.adc.com**

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